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- 4 -

#### c.) Amendments to the Claims

1. (Currently amended) A compound of formula I

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(or a pharmaceutically acceptable salt thereof) wherein:

 ${\rm A}^3$ ,  ${\rm A}^4$ ,  ${\rm A}^5$  and  ${\rm A}^6$ , together with the two carbons to which they are attached, complete a substituted benzene in which  ${\rm A}^3$  is  ${\rm CR}^3$ ,  ${\rm A}^4$  is  ${\rm CR}^4$ ,  ${\rm A}^5$  is  ${\rm CR}^5$ , and  ${\rm A}^6$  is  ${\rm CR}^6$ ; wherein

R<sup>3</sup> is hydrogen, methyl, methoxy, fluoro, chloro or carboxy;

one of  $R^4$  and  $R^5$  is hydrogen, (1-4C)alkyl, halo, trifluoromethyl, trifluoromethoxy,  $R^{f}O_-$ ,  $R^{f}O_2CCH_2O_-$ ,  $HO(CH_2)_aO_-$  (in which a is 2, 3 or 4),  $R^{f}O_2C_-$ ,  $R^{f}O_2CCH_2-$ ,  $R^{g}NH_-$ ,  $R^{h}SO_2-$ , hydroxymethyl, formyl, cyano, acetyl, 1-hydroxyethyl, 1-(hydroxyimino)ethyl, 1-(methoxyimino)ethyl, methylthio or  $R^{f}O_2C(CH_2)_2-$ ;

the other of  $R^4$  and  $R^5$  is hydrogen; and  $R^6$  is hydrogen, methyl, fluoro, chloro or methoxy; in which  $R^f$  is hydrogen, (1-4C)alkyl or benzyl;  $R^g$  is hydrogen or  $R^hSO_2$ -; and  $R^h$  is (1-4C)alkyl or dimethylamino;

or each of R<sup>3</sup>, R<sup>4</sup> and R<sup>6</sup> is hydrogen; and R<sup>5</sup> is vinyl, 2-cyanovinyl, 2-({(1-2C)alkoxy}carbonyl)vinyl or R<sup>a</sup> in which R<sup>a</sup> is phenyl (which is unsubstituted or bears one or more substituents independently selected from halo, methyl, methoxy and hydroxy) or heteroaryl (which heteroaryl is a 5-membered aromatic ring which has includes—one to four heteroatoms selected from sulfur, oxygen and nitrogen or is a 6-membered aromatic ring which has includes—one to three nitrogen atoms, wherein the heteroaryl is attached at carbon

- 5 -

and may bear one or more methyl substituents on carbon or nitrogen);

 $L^1$  is -CO-NH- such that  $-L^1-Q^1$  is -CO-NH- $Q^1$ ;

Q<sup>1</sup> is 2 pyridinyl (which bears a methyl, methoxy,

5 methylthio, fluoro or chloro substituent at the 5 position),

3 pyridinyl (which bears a methyl, fluoro or chloro
substituent at the 6 position), 2-pyrimidinyl (which may
bear a methyl, fluoro or chloro substituent at the
5-position) or 3 pyridazinyl (which may bear a methyl,

10 fluoro or chloro substituent at the 6 position);

 $R^2 \text{ is } -L^2-Q^2 \text{ in which } -L^2- \text{ is } -NH-CO-, -NH-CO-X-, \\ -NH-CO-O-X-, -NH-CO-NH-X-, -NH-CH_2-, -NH-C (CH_3) H-, \\ -N(CH_3)-CH_2- \text{ or } -O-CH_2-; \text{ and } Q^2 \text{ is } Q^{2A}, Q^{2B}, Q^{2C}, Q^{2D}, Q^{2E} \\ \text{or } Q^{2F} \text{ } Q^{2E}\text{-wherein } X \text{ is a single bond or methylene and the} \\ \text{values of } L^2 \text{ and } Q^2 \text{ are together selected from } -NH-CO-X-Q^{2A}, \\ -NH-CO-O-X-Q^{2A}, -NH-CO-NH-X-Q^{2A}, -NH-CH_2-Q^{2A}, \\ -NH-C (CH_3) H-Q^{2A}, -N (CH_3)-CH_2-Q^{2A}, -O-CH_2-Q^{2A}, -NH-CO-X-Q^{2B}, \\ -NH-CO-Q^{2C}, -NH-CO-Q^{2D}, -NH-CO-Q^{2E} \text{ and } -NH-CO-Q^{2F} \text{ in which:} \\ \text{O}^{2A} \text{ (showing the } L^2 \text{ to which it is attached) is}$ 

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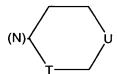
in which

each of m and n independently is 0 or 1, or m is 2 and 25  $\,$  n is 1, and

 $R^{2A}$  is hydrogen, t-butyl, methylsulfonyl, -CHRYRZ, -CHRWRX, or 4-pyridinyl (which is unsubstituted or bears a substituent RV at the 2- or 3-position) wherein

 $R^V$  is methyl, hydroxymethyl, {(1-2C)alkoxy}carbonyl; 30 cyano, carbamoyl, thiocarbamoyl, or N-hydroxyamidino;

each of  $R^W$  and  $R^X$  independently is hydrogen or (1-3C)normal alkyl; or -CHRWRX is 2-indanyl or (showing the nitrogen to which it is attached) is



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in which T is a single bond or methylene and U is methylene, ethylene,  $\exp(-S(0)_q)$  (wherein q is 0, 1 or 2) or imino (which may bear a methyl substituent), or T is ethan-1,1-diyl and U is a single bond or methylene;

RY is hydrogen or methyl; and

R<sup>Z</sup> is isopropyl, t-butyl, (3-6C)cycloalkyl, phenyl (which is unsubstituted or bears one or more substituents independently selected from halo, methyl, methoxy and hydroxy), 4-quinolinyl or heteroaryl (which heteroaryl is a 5-membered aromatic ring which <a href="https://doi.org/10.25">heteroatoms</a> selected from sulfur, oxygen and nitrogen or is a 6-membered aromatic ring which <a href="https://doi.org/10.25">has includes</a>—one to three nitrogen atoms, wherein the heteroaryl is attached at carbon and may bear one or more methyl substituents on carbon or nitrogen);

or R<sup>2A</sup> is -L<sup>b</sup>-CH<sub>2</sub>-R<sup>b</sup> in which -L<sup>b</sup>- is a direct bond,
-CH<sub>2</sub>-, -C(CH<sub>3</sub>)H- or -CH<sub>2</sub>-CH<sub>2</sub>-; and R<sup>b</sup> is carboxy,
{(1-2C)alkoxy}carbonyl, cyano, carbamoyl or trifluoromethyl;
or R<sup>2A</sup> is -CO-R<sup>C</sup> in which R<sup>C</sup> is hydrogen, (1-3C)alkyl,
{(1-2C)alkoxy}carbonyl-(CH<sub>2</sub>)<sub>C</sub>- (in which c is 1 or 2),
phenyl (which is unsubstituted or bears one or more
substituents independently selected from halo, methyl,
methoxy and hydroxy), heteroaryl (which heteroaryl is a
5-membered aromatic ring which has includes—one to four
heteroatoms selected from sulfur, oxygen and nitrogen or is

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a 6-membered aromatic ring which <u>has includes</u> one to three nitrogen atoms, wherein the heteroaryl is attached at carbon and may bear one or more methyl substituents on carbon or nitrogen) or -NR<sup>d</sup>R<sup>e</sup> in which each of R<sup>d</sup> and R<sup>e</sup> is independently hydrogen, methyl or ethyl, or -NR<sup>d</sup>R<sup>e</sup> is pyrrolidino, piperidino, morpholino or thiomorpholino;

 $Q^{2B}$  is 1-piperazinyl which bears at the 4-position the group  $R^{2A}$  (defined as above);

 $Q^{2C}$  is 3,4-didehydropiperidin-4-yl which bears at the 1-position the group  $R^{2A}$  (defined as above);

 $Q^{\mathrm{2D}}$  is cyclohexyl which bears at the 4-position the group  $-\mathrm{NR}^{\mathrm{S}R^{\mathrm{t}}}$  in which each of  $\mathrm{R}^{\mathrm{S}}$  and  $\mathrm{R}^{\mathrm{t}}$  independently is hydrogen or methyl or  $\mathrm{R}^{\mathrm{S}}$  and  $\mathrm{R}^{\mathrm{t}}$  together are trimethylene or tetramethylene;

 $Q^{2E}$  is 1-piperidinyl which bears at the 4-position the group  $-NR^{SR}^{t}$  (defined as above); and

 $Q^{2F}$  (showing the  $L^2$  to which it is attached) is

$$-(L^2)$$
- $R^p$ 

in which R<sup>O</sup> is hydrogen, halo, (1-6C)alkyl, hydroxy, (1-4C)alkoxy, benzyloxy or (1-4C)alkylthio; and R<sup>P</sup> is acetylamino, 1-hydroxyethyl, 1-hydroxy-1-methylethyl, 1-methoxy-1-methylethyl, 4-piperidinyl, 4-pyridinyl, dimethylaminosulfonyl or -J-R<sup>Q</sup> in which J is a single bond, methylene, carbonyl, oxy, -S(O)<sub>Q</sub>- (wherein q is 0, 1 or 2), or -NR<sup>T</sup>- (wherein R<sup>T</sup> is hydrogen or methyl); and R<sup>Q</sup> is (1-6C)alkyl, phenyl, 3-pyridyl or 4-pyridyl; or -NR<sup>Q</sup>R<sup>T</sup> is pyrrolidino.

- 8 -

2. (Currently amended) The compound of formula I as claimed in Claim  ${\bf 1}$ 

$$A_{l}^{5} A_{A}^{6} L^{1}-Q^{1}$$

$$A_{l}^{4} A^{3} B^{2}$$

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(or a pharmaceutically acceptable salt thereof) wherein:

 ${\rm A}^3$ ,  ${\rm A}^4$ ,  ${\rm A}^5$  and  ${\rm A}^6$ , together with the two carbons to which they are attached, complete a substituted benzene in which  ${\rm A}^3$  is  ${\rm CR}^3$ ,  ${\rm A}^4$  is  ${\rm CR}^4$ ,  ${\rm A}^5$  is  ${\rm CR}^5$ , and  ${\rm A}^6$  is  ${\rm CR}^6$ ; wherein

 $\rm R^3$  is hydrogen, methyl, fluoro, chloro or carboxy; one of  $\rm R^4$  and  $\rm R^5$  is hydrogen, (1-4C)alkyl, halo, trifluoromethyl, trifluoromethoxy,  $\rm R^fO_-$ ,  $\rm R^fO_2CCH_2O_-$ ,  $\rm HO(CH_2)_aO_-$  (in which a is 2, 3 or 4),  $\rm R^fO_2C_-$ ,  $\rm R^fO_2CCH_2^-$ ,  $\rm R^gNH_-$  or  $\rm R^hSO_2^-$ ;

the other of  $R^4$  and  $R^5$  is hydrogen; and  $R^6$  is hydrogen, methyl, fluoro, chloro or methoxy; in which  $R^f$  is hydrogen, (1-4C)alkyl or benzyl;  $R^g$  is hydrogen or  $R^hSO_2$ -; and  $R^h$  is (1-4C)alkyl or dimethylamino;  $L^1$  is -CO-NH- such that  $-L^1-Q^1$  is -CO-NH- $Q^1$ ;

Q<sup>1</sup> is 2 pyridinyl (which bears a methyl, methoxy, methylthio, fluoro or chloro substituent at the 5 position), 3 pyridinyl (which bears a methyl, fluoro or chloro substituent at the 6 position), 2-pyrimidinyl (which may bear a methyl, fluoro or chloro substituent at the 5-position) or 3 pyridazinyl (which may bear a methyl, fluoro or chloro substituent at the 6 position);

 $\rm R^2$  is  $\rm -L^2-Q^2$  in which  $\rm -L^2-$  is -NH-CO-, -NH-CO-X-, -NH-CO-O-X-, -NH-CO-NH-X-, -NH-CH $_2-$  or -O-CH $_2-$ ; and  $\rm Q^2$  is  $\rm Q^{2A}, \, \rm Q^{2B}, \, \rm Q^{2C}, \, \rm Q^{2D}, \, \rm Q^{2E}$  or  $\rm Q^{2F}$  wherein X is a single bond or methylene and the values of  $\rm L^2$  and  $\rm Q^2$  are together selected from -NH-CO-X-Q $^{2A}$ , -NH-CO-O-X-Q $^{2A}$ , -NH-CO-NH-X-Q $^{2A}$ ,

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-NH-CH<sub>2</sub>-Q<sup>2A</sup>, -O-CH<sub>2</sub>-Q<sup>2A</sup>, -NH-CO-X-Q<sup>2B</sup>, -NH-CO-Q<sup>2C</sup>, -NH-CO-Q<sup>2D</sup>, -NH-CO-Q<sup>2E</sup> and -NH-CO-Q<sup>2F</sup> in which:  $Q^{2A} \text{ (showing the L}^2 \text{ to which it is attached) is}$ 

$$-(L^2)$$
  $(CH_2)_m$   $N-R^{2\beta}$   $(CH_2)_0$ 

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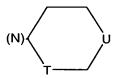
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in which

each of m and n independently is 0 or 1, and  $R^{2A} \text{ is hydrogen, t-butyl, methylsulfonyl, -CHR}^{Y}R^{Z}, \\ -CHR^{W}R^{X}, \text{ or 4-pyridinyl (which is unsubstituted or bears a substituent } R^{V} \text{ at the 2- or 3-position) wherein }$ 

 $R^{V}$  is methyl, hydroxymethyl, {(1-2C)alkoxy}carbonyl; cyano, carbamoyl, thiocarbamoyl, or N-hydroxyamidino;

each of  $R^W$  and  $R^X$  independently is hydrogen or (1-3C)normal alkyl; or  $-CHR^WR^X$  is 2-indanyl or (showing the nitrogen to which it is attached) is



in which T is a single bond or methylene and U is methylene, ethylene,  $\exp(-S(0)_q)$  (wherein q is 0, 1 or 2) or imino (which may bear a methyl substituent), or T is ethan-1,1-diyl and U is a single bond or methylene;

RY is hydrogen or methyl; and

25 R<sup>Z</sup> is isopropyl, t-butyl, (3-6C)cycloalkyl, phenyl (which is unsubstituted or bears one or more substituents independently selected from halo, methyl, methoxy and hydroxy), 4-quinolinyl or heteroaryl (which heteroaryl is a

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5-membered aromatic ring which <u>has includes</u>—one to four heteroatoms selected from sulfur, oxygen and nitrogen or is a 6-membered aromatic ring which <u>has includes</u>—one to three nitrogen atoms, wherein the heteroaryl is attached at carbon and may bear one or more methyl substituents on carbon or nitrogen);

 $Q^{2B}$  is 1-piperazinyl which bears at the 4-position the group  $R^{2A}$  (defined as above);

 $Q^{2C}$  is 3,4-didehydropiperidin-4-yl which bears at the 1-position the group  $R^{2A}$  (defined as above);

 $Q^{\mathrm{2D}}$  is cyclohexyl which bears at the 4-position the group  $-\mathrm{NR}^{\mathrm{S}}\mathrm{R}^{\mathrm{t}}$  in which each of  $\mathrm{R}^{\mathrm{S}}$  and  $\mathrm{R}^{\mathrm{t}}$  independently is hydrogen or methyl or  $\mathrm{R}^{\mathrm{S}}$  and  $\mathrm{R}^{\mathrm{t}}$  together are trimethylene or tetramethylene;

15  $Q^{2E}$  is 1-piperidinyl which bears at the 4-position the group  $-NR^{S}R^{t}$  (defined as above); and

 $Q^{2F}$  (showing the  $L^2$  to which it is attached) is

$$-(L^2)$$
- $R^p$ 

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#### - 11 -

- 3. (Currently amended) A compound of formula I (or a pharmaceutically acceptable salt thereof) as claimed in Claim 2 wherein:
- $A^3$ ,  $A^4$ ,  $A^5$  and  $A^6$ , together with the two carbons to which they are attached, complete a substituted benzene in which  $A^3$  is  $CR^3$ ,  $A^4$  is  $CR^4$ ,  $A^5$  is  $CR^5$ , and  $A^6$  is  $CR^6$ ; wherein

R<sup>3</sup> is hydrogen;

one of  $R^4$  and  $R^5$  is hydrogen, methyl, fluoro, chloro, trifluoromethyl, trifluoromethoxy,  $R^{f}O_2C$ - or  $R^{g}NH$ -;

the other of  $R^4$  and  $R^5$  is hydrogen; and  $R^6$  is hydrogen;

in which  $R^f$  is hydrogen, (1-4C)alkyl or benzyl;  $R^g$  is hydrogen or  $R^hSO_2-$ ; and  $R^h$  is (1-4C)alkyl or dimethylamino;

 $L^1$  is -CO-NH- such that  $-L^1-Q^1$  is -CO-NH- $Q^1$ ;

Q<sup>1</sup> is 2 pyridinyl (which bears a methyl, fluoro or chloro substituent at the 5 position), 3 pyridinyl (which bears a methyl, fluoro or chloro substituent at the 6 position), 2-pyrimidinyl (which may bear a methyl, fluoro or chloro substituent at the 5-position) or 3 pyridazinyl (which may bear a methyl, fluoro or chloro substituent at the 6 position);

 $\rm R^2$  is  $\rm -L^2-Q^2$  in which  $\rm -L^2-$  is -NH-CO-, -NH-CO-X-, -NH-CO-O-X-, -NH-CO-NH-X-, -NH-CH2- or -O-CH2-; and  $\rm Q^2$  is  $\rm Q^{2A}$ ,  $\rm Q^{2B}$ ,  $\rm Q^{2C}$ ,  $\rm Q^{2D}$ ,  $\rm Q^{2E}$  or  $\rm Q^{2F}$  wherein X is a single bond or methylene and the values of  $\rm L^2$  and  $\rm Q^2$  are together selected from -NH-CO-X-Q^{2A}, -NH-CO-O-X-Q^{2A}, -NH-CO-NH-X-Q^{2A}, -NH-CH\_2-Q^{2A}, -O-CH\_2-Q^{2A}, -NH-CO-X-Q^{2B}, -NH-CO-Q^{2C}, -NH-CO-Q^{2D}, -NH-CO-Q^{2E} and -NH-CO-Q^2F in which:

- 12 -

 $Q^{2A}$  (showing the  $L^2$  to which it is attached) is

$$(CH_2)_m$$
 $N-R^{2A}$ 
 $(CH_2)_0$ 

5 in which

each of m and n independently is 0 or 1, and  $R^{2A}$  is hydrogen, -CHRYRZ, -CHRWRX, or 4-pyridinyl (which is unsubstituted or bears a substituent RV at the 2-or 3-position) wherein

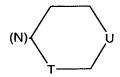
10 R<sup>V</sup> is methyl, hydroxymethyl, {(1-2C)alkoxy}carbonyl; cyano, carbamoyl, thiocarbamoyl, or N-hydroxyamidino;

each of  $R^W$  and  $R^X$  independently is hydrogen or (1-3C)normal alkyl; or  $-CHR^WR^X$  is 2-indanyl or (showing the nitrogen to which it is attached) is

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in which T is a single bond or methylene and U is methylene, oxy, thioxy or imino (which may bear a methyl substituent), or T is ethan-1,1-diyl and U is a single bond or methylene;

 $R^{\mathrm{y}}$  is hydrogen or methyl; and

R<sup>Z</sup> is isopropyl, t-butyl, (3-6C)cyclopropyl, phenyl (which is unsubstituted or bears one or more substituents independently selected from halo, methyl, methoxy and hydroxy), 4-quinolinyl or heteroaryl (which heteroaryl is a 5-membered aromatic ring which <u>has includes</u> one to four heteroatoms selected from sulfur, oxygen and nitrogen or is a 6-membered aromatic ring which <u>has includes</u> one to three

nitrogen atoms, wherein the heteroaryl is attached at carbon and may bear one or more methyl substituents on carbon or nitrogen);

 $Q^{2B}$  is 1-piperazinyl which bears at the 4-position the group  $R^{2A}$  (defined as above);

 $Q^{2C}$  is 3,4-didehydropiperidin-4-yl which bears at the 1-position the group  $R^{2A}$  (defined as above);

 $Q^{\mathrm{2D}}$  is cyclohexyl which bears at the 4-position the group  $-\mathrm{NR}^{\mathrm{S}}\mathrm{R}^{\mathrm{t}}$  in which each of  $\mathrm{R}^{\mathrm{S}}$  and  $\mathrm{R}^{\mathrm{t}}$  independently is hydrogen or methyl or  $\mathrm{R}^{\mathrm{S}}$  and  $\mathrm{R}^{\mathrm{t}}$  together are trimethylene or tetramethylene;

 $Q^{2E}$  is 1-piperidinyl which bears at the 4-position the group  $-NR^{S}R^{t}$  (defined as above); and

 $Q^{2F}$  (showing the  $L^2$  to which it is attached) is

$$-(L^2) R^0$$

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in which R<sup>O</sup> is hydrogen and R<sup>P</sup> is acetylamino, 1-hydroxyethyl, 1-hydroxy-1-methylethyl, 1-methoxy-1-methylethyl, 4-piperidinyl, 4-pyridinyl,

- dimethylaminosulfonyl or  $-J-R^q$  in which J is a single bond, methylene, carbonyl, oxy,  $-S(O)_q$  (wherein q is 0, 1 or 2), or  $-NR^r$  (wherein  $R^r$  is hydrogen or methyl); and  $R^q$  is (1-6C)alkyl, phenyl, 3-pyridyl or 4-pyridyl.
- 4. (Original) The compound of Claim 1, 2 or 3 wherein halo is fluoro, chloro, bromo or iodo; (1-2C)alkyl is methyl or ethyl; (1-3C)normal alkyl is methyl, ethyl or propyl; (1-4C)alkyl is methyl, ethyl, propyl, isopropyl, butyl, isobutyl, or t-butyl; (1-6C)alkyl is methyl, ethyl, propyl, butyl, pentyl or hexyl; (3-6C)cycloalkyl is cyclopropyl, cyclobutyl, cyclopenytyl or cyclohexyl.

- 5. (Currently amended) The compound of Claim 4 any of Claims 1 4 wherein Q<sup>1</sup> is 5-chloropyrimidin-2-yl 5 chloropyridin 2 yl, 5 fluoropyridin 2 yl, or 6 chloropyridazin 3 yl.
- 6. (Currently amended) The compound of Claim 4 any of Claims 1 5 wherein R<sup>2</sup> is (1-isopropylpiperidin-4-yl-carbonyl)amino, (1-cyclohexylpiperidin-4-ylcarbonyl)amino, (4-isopropylpiperazin-1-ylcarbonyl)amino, [1-(tetrahydro-pyran-4-yl)piperidin-4-ylcarbonyl]amino, [4-(1-pyrrolidinyl)piperidin-1-ylcarbonyl]amino, [1-(4-pyridinyl)piperidin-4-ylmethyl]amino, [1-(2-carboxypyridin-4-yl)piperidin-4-ylmethyl]amino, or [1-(2-methoxycarbonylpyridin-4-yl)-piperidin-4-ylmethyl]amino.
  - 7. (Currently amended) The compound as claimed in Claim 4 any of Claims 1 6 wherein each of  $R^3-R^6$  is hydrogen.
- 8. (Currently amended) The compound as claimed in Claim 4 any of Claims 1 6 wherein each of  $\mathbb{R}^3$ ,  $\mathbb{R}^4$  and  $\mathbb{R}^6$  is hydrogen and  $\mathbb{R}^5$  is chloro or fluoro.
- 9. (Currently amended) The compound as claimed in

  25 Claim 1 any of Claims 1, 4, 5 and 6 wherein each of R<sup>3</sup>, R<sup>4</sup>
  and R<sup>6</sup> is hydrogen and R<sup>5</sup> is R<sup>a</sup> wherein R<sup>a</sup> is phenyl,
  furanyl, thienyl, 2-isothiazolyl or pyridyl; and wherein
  halo is fluoro, chloro, bromo or iodo; (1-2C)alkyl is methyl
  or ethyl; (1-3C)normal alkyl is methyl, ethyl or propyl;

  30 (1-4C)alkyl is methyl, ethyl, propyl, isopropyl, butyl,
  isobutyl, or t-butyl; (1-6C)alkyl is methyl, ethyl, propyl,
  butyl, pentyl or hexyl; (3-6C)cycloalkyl is cyclopropyl,
  cyclobutyl, cyclopenytyl or cyclohexyl.

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- 10. (Currently amended) The pharmaceutically acceptable salt of a compound of formula I as claimed in any of Claims 1-3 1-9 which is an acid-addition salt made from a basic compound of formula I and an acid which provides a pharmaceutically acceptable anion or a salt which is made from an acidic compound of formula I and a base which provides a pharmaceutically acceptable cation.
- 11. (Currently amended) A pharmaceutical formulation
  10 comprising in association with a pharmaceutically acceptable
  carrier, diluent or excipient, a novel compound of formula I
  (or a pharmaceutically acceptable salt thereof) as provided
  in any of Claims 1-3 1 10.
- 15 12. (Original) A process for preparing a compound of formula I (or a pharmaceutically acceptable salt thereof) as provided in Claim 1 or 2 which is selected from
  - (A) for a compound of formula I in which  $-L^2-Q^2$ , is  $-NH-CO-Q^2$ ,  $-NH-CO-X-Q^2$ ,  $-NH-CO-NH-X-Q^2$ , acylating an amine of formula II,

$$A_{A_{3}}^{5}$$
 $A_{A_{3}}^{6}$ 
 $A_{A_{3}}^{1}$ 
 $A_{A_{3}}^{1$ 

using a corresponding acid of formula  $HO-CO-Q^2$ ,  $HO-CO-X-Q^2$ ,  $HO-CO-O-X-Q^2$ , or  $HO-CO-NH-X-Q^2$ , or an activated derivative thereof;

(B) for a compound of formula I in which  $-L^2-Q^2$  is  $-O-CH_2-Q^{2A}$ , akylating a phenol of formula III

using a reagent of formula  $Y-CH_2-Q^{2A}$  in which Y is a conventional leaving group;

(C) acylating an amine of formula  $H_2N-Q^1$ , or a deprotonated derivative thereof, using an acid of formula IV, or an activated derivative thereof;

$$A_1^5$$
 OH  $A_1^4$   $A^3$   $R^2$  IV

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- (D) for a compound of formula I in which  $R^2$  is  $-NH-CH_2-Q^{2A}$ , alkylating an amine of formula II directly, using a compound of formula Y-CH<sub>2</sub>-Q<sup>2A</sup>, or indirectly by reductive alkylation using an aldehyde of formula Q<sup>2A</sup>-CHO;
- 15 (E) for a compound of formula I in which  $R^2$  is  $-NH-CO-O-X-Q^{2A}, \text{ or } -NH-CO-NH-X-Q^{2A}, \text{ acylating an alcohol of formula } HO-X-Q^{2A} \text{ or an amine of formula } NH_2-X-Q^{2A}, \text{ using an activated derivative of an acid of formula } VI;$

$$A_{l}^{5}$$
 $A_{l}^{4}$ 
 $A^{3}$ 
 $A^{1}$ 
 $A^{3}$ 
 $A^{1}$ 
 $A^{2}$ 
 $A^{3}$ 
 $A^{3}$ 
 $A^{4}$ 
 $A^{4}$ 
 $A^{3}$ 
 $A^{4}$ 
 $A^{4}$ 
 $A^{4}$ 
 $A^{4}$ 
 $A^{3}$ 
 $A^{4}$ 
 $A^{4$ 

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(F) for a compound of formula I in which  $R^2$  is -NH-CO-X-Q<sup>2B</sup> in which X is a single bond, acylating at the 1-position a piperazine of formula H-Q<sup>2B</sup>, using an activated derivative of an acid of formula VI;

#### - 17 -

(G) for a compound of formula I in which  $R^2$  is -NH-CO-X- $Q^{2B}$  in which X is methylene, alkylating at the 1-position a piperazine of formula H- $Q^{2B}$ , using an alkylating agent of formula VII

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$$A_{\parallel}^{5}$$
 $A_{\parallel}^{6}$ 
 $A_{\parallel}^{1}$ 
 $A_{\parallel}^{2}$ 
 $A_{\parallel}^{3}$ 
 $A_{\parallel}^{1}$ 
 $A_{\parallel}^{2}$ 
 $A_{\parallel}^{3}$ 
 $A_{\parallel}^{4}$ 
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 $A_{\parallel}^{3}$ 
 $A_{\parallel}^{4}$ 
 $A_{\parallel}^{4}$ 

in which Y is a leaving group;

- (H) for a compound of formula I in which  $R^{2A}$  is methylsulfonyl, substituting the amino nitrogen of a corresponding compound of formula I in which  $R^{2A}$  is hydrogen using an activated derivative of methanesulfonic acid;
- (I) for a compound of formula I in which  $R^{2A}$  is  $-CHR^{y}R^{z}$  or  $-CHR^{w}R^{x}$ , alkylating the amino nitrogen of a corresponding compound of formula I in which  $R^{2A}$  is hydrogen using an alkylating agent of formula Y-CHR $^{y}R^{z}$  or Y-CHR $^{w}R^{x}$  or reductively alkylating the amine using a compound of formula  $R^{y}-CO-R^{z}$  or  $R^{w}-CO-R^{x}$ ;
- (J) for a compound of formula I in which  $R^{2A}$  is 4-pyridinyl (which is unsubstituted or bears a substituent  $R^{V}$  at the 2- or 3-position), substituting the amino nitrogen of a corresponding compound of formula I in which  $R^{2A}$  is hydrogen using a corresponding pyridine reagent bearing a leaving group Y at the 4-position;
- (K) for a compound of formula I in which  $R^{2A}$  is 4-pyridinyl in which  $R^{V}$  is alkoxycarbonyl, esterifying a corresponding compound of formula I in which  $R^{V}$  is carboxy;
- (L) for a compound of formula I in which  $R^{2A}$  is 4-pyridinyl in which  $R^{V}$  is hydroxymethyl, reducing the ester of a corresponding compound of formula I in which  $R^{V}$  is alkoxycarbonyl;
- (M) for a compound of formula I in which  ${\bf R}^{2A}$  is 4-pyridinyl in which  ${\bf R}^{\bf V}$  is carbamoyl, amidating the ester of

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a corresponding compound of formula I in which  $R^{V}$  is alkoxycarbonyl;

- (N) for a compound of formula I in which  $R^{2A}$  is 4-pyridinyl in which  $R^{V}$  is thiocarbamoyl, adding  $H_{2}S$  to the nitrile of a corresponding compound of formula I in which  $R^{V}$  is cyano;
- (0) for a compound of formula I in which  $R^{2A}$  is 4-pyridinyl in which  $R^{V}$  is N-hydroxyamidino, adding H<sub>2</sub>NOH to the nitrile of a corresponding compound of formula I in which  $R^{V}$  is cyano;
- (P) for a compound of formula I in which  $R^{2A}$  is 4-pyridinyl in which  $R^{V}$  is carboxy, decomposing the ester of a corresponding compound of formula I in which  $R^{V}$  is alkoxycarbonyl;
- 15 (Q) for a compound of formula I in which -NR<sup>S</sup>R<sup>t</sup> is other than amino, alkylating a corresponding compound of formula I in which -NR<sup>S</sup>R<sup>t</sup> is amino using a conventional method;
  - (R) for a compound of formula I which bears -NRSRt, reductively alkylating H-NRSRt using a corresponding compound but in which the carbon to bear the -NRSRt group bears an oxo group;
    - (S) for a compound of formula I in which R<sup>p</sup> is 1-hydroxy-1-methylethyl, adding a methyl group to the carbonyl group of a corresponding compound of formula I in which R<sup>p</sup> is acetyl using an organometallic reagent;
    - (T) for a compound of formula I in which RP is 1-methoxy-1-methylethyl, treating a corresponding compound of formula I in which RP is 1-hydroxy-1-methylethyl with methanol and an acid catalyst;
    - (U) for a compound of formula I in which  $R^4$  or  $R^5$  is amino, reducing the nitro group of a compound corresponding to a compound of formula I but in which  $R^4$  or  $R^5$  is nitro;

(V) for a compound of formula I in which  $R^4$  or  $R^5$  is  $R^9 NH-$  and  $R^9$  is  $R^h SO_2-$ , substituting the amino group of a corresponding compound of formula I in which  $R^4$  or  $R^5$  is amino using an activated derivative of the sulfonic acid  $R^h SO_2-OH$ ;

whereafter, for any of the above procedures, when a functional group is protected using a protecting group, removing the protecting group;

whereafter, for any of the above procedures, when a

10 pharmaceutically acceptable salt of a compound of formula I

is required, it is obtained by reacting the basic form of a

basic compound of formula I with an acid affording a

physiologically acceptable counterion or the acidic form of

an acidic compound of formula I with a base affording a

15 physiologically acceptable counterion or by any other

conventional procedure;

and wherein, unless otherwise specified,  $A^3-A^6$ ,  $L^1$ ,  $Q^1$  and  $R^2$  have any of the values defined in Claim 1 or 2.

- 20 13. (Currently amended) A method of inhibiting factor

  Xa in a mammal comprising administering to the a-mammal in need thereof of treatment, an effective amount of a compound of formula I as provided in any of Claims 1-3 1-10.
- 25 14-16. (Cancelled)
  - 17. (New) The compound of Claim 5 wherein  $R^2$  is (1-isopropylpiperidin-4-ylcarbonyl)amino, (1-cyclohexylpiperidin-4-ylcarbonyl)amino,
- 30 (4-isopropylpiperazin-1-ylcarbonyl)amino, [1-(tetrahydropyran-4-yl)piperidin-4-ylcarbonyl]amino, [4-(1-pyrrolidinyl)piperidin-1-ylcarbonyl]amino, [1-(4-pyridinyl)piperidin-4-ylmethyl]amino, [1-(2-carboxypyridin-4-yl)piperidin-

4-ylmethyl]amino, or [1-(2-methoxycarbonylpyridin-4-yl)-piperidin-4-ylmethyl]amino.

- 18. (New) The compound as claimed in Claim 5 wherein 5 each of  $R^3-R^6$  is hydrogen.
  - 19. (New) The compound as claimed in Claim 6 wherein each of  $\mathbb{R}^3$ - $\mathbb{R}^6$  is hydrogen.
- 10 20. (New) The compound as claimed in Claim 17 wherein each of  $R^3-R^6$  is hydrogen.
- 21. (New) The compound as claimed in Claim 5 wherein each of  $\mathbb{R}^3$ ,  $\mathbb{R}^4$  and  $\mathbb{R}^6$  is hydrogen and  $\mathbb{R}^5$  is chloro or fluoro.
  - 22. (New) The compound as claimed in Claim 6 wherein each of  $\mathbb{R}^3$ ,  $\mathbb{R}^4$  and  $\mathbb{R}^6$  is hydrogen and  $\mathbb{R}^5$  is chloro or fluoro.
  - 23. (New) The compound as claimed in Claim 17 wherein each of  $\mathbb{R}^3$ ,  $\mathbb{R}^4$  and  $\mathbb{R}^6$  is hydrogen and  $\mathbb{R}^5$  is chloro or fluoro.
- 25 24. (New) The compound of Claim 9 wherein  $Q^1$  is 5-chloropyrimidin-2-yl.
  - 25. (New) The compound of Claim 9 wherein  $\mathbb{R}^2$  is (1-isopropylpiperidin-4-ylcarbonyl) amino,

- 21 -

4-ylmethyl]amino, or [1-(2-methoxycarbonylpyridin-4-yl)-piperidin-4-ylmethyl]amino.

- 26. (New) The compound of Claim 24 wherein R<sup>2</sup> is

  (1-isopropylpiperidin-4-ylcarbonyl)amino,
  (1-cyclohexylpiperidin-4-ylcarbonyl)amino,
  (4-isopropylpiperazin-1-ylcarbonyl)amino, [1-(tetrahydro-pyran-4-yl)piperidin-4-ylcarbonyl]amino, [4-(1-pyrroli-dinyl)piperidin-1-ylcarbonyl]amino, [1-(4-pyridinyl)piperidin-4-ylmethyl]amino, [1-(2-carboxypyridin-4-yl)piperidin-4-ylmethyl]amino, or [1-(2-methoxycarbonylpyridin-4-yl)-piperidin-4-ylmethyl]amino.
- 27. (New) N-(5-Chloropyrimidin-2-yl)-2-[[1-(4-pyri-15 dinyl)piperidin-4-ylcarbonyl]amino]benzamide, or a pharmaceutically acceptable salt thereof.